

WHAT IS CLAIMED IS:

1. A semiconductor device, comprising:
 - a base substrate including a base wiring pattern;
 - a first circuit substrate disposed over the base substrate and including a first wiring pattern;
 - a first semiconductor element mounted on the first circuit substrate and including a first electrode electrically connected to the first wiring pattern;
 - a second circuit substrate disposed over the first circuit substrate and including a second wiring pattern;
 - a second semiconductor element mounted on the second circuit substrate and including a second electrode electrically connected to the second wiring pattern;
 - a first protruded electrode electrically connected to the first wiring pattern and provided protruding from the first circuit substrate and bonded to the base wiring pattern; and
 - a second protruded electrode electrically connected to the second wiring pattern and provided protruding from the second circuit substrate and bonded to the base wiring pattern.
2. The semiconductor device according to claim 1, further comprising a third semiconductor element mounted on the base substrate and including a third electrode electrically connected to the base wiring pattern.
3. The semiconductor device according to claim 1, wherein the second protruded electrode is thicker than the first protruded electrode.

4. The semiconductor device according to claim 1, further comprising another semiconductor element layered on the first semiconductor element.

5. The semiconductor device according to claim 1, further comprising another semiconductor element layered on the second semiconductor element.

6. A method for manufacturing a semiconductor device, comprising:
disposing a first circuit substrate, which is a circuit substrate having a first wiring pattern, having a first semiconductor element mounted thereon including a first electrode that is electrically connected to the first wiring pattern over a base wiring substrate including a base wiring pattern;

bonding a first protruded electrode provided between the first circuit substrate and the base substrate to the base wiring pattern to electrically connect the first wiring pattern and the base wiring pattern;

disposing a second circuit substrate, which is a circuit substrate including a second wiring pattern, having a second semiconductor element mounted thereon including a second electrode that is electrically connected to the second wiring pattern over the first circuit substrate; and

bonding a second protruded electrode provided between the second circuit substrate and the base substrate to the base wiring pattern to electrically connect the second wiring pattern and the base wiring pattern.

7. The method for manufacturing a semiconductor device according to claim 6, further comprising:

protruding the second protruded electrode from a surface of the second circuit substrate, and

positioning the second circuit substrate and the base substrate are such that the first circuit substrate is positioned below a region that avoids a region

where the second protruded electrode of the second circuit substrate is formed after the step of electrically connecting the first wiring pattern and the base wiring pattern, and before the step of disposing the second circuit substrate over the first circuit substrate.

8. An electronic device comprising a semiconductor device recited in any one of claim 1.

9. The semiconductor device according to claim 1, wherein the base substrate is equipped with a dielectric substrate material.

10. The semiconductor device according to claim 1, wherein the base wiring pattern has a multiple layered wiring structure.

11. The semiconductor device according to claim 1, wherein the second semiconductor element includes electrodes.

12. The semiconductor device according to claim 1, wherein the base wiring pattern includes lands bonded to the first and second protruded electrodes.

13. The semiconductor device according to claim 1, wherein the first and second protruded electrodes are bonded to the base wiring pattern selected from the group consisting of anisotropic conductive adhesive, dielectric adhesive, alloy bonding, metal bonding and inter-metal diffusion bonding.

14. The semiconductor device according to claim 11, wherein the electrodes are formed from electrode pads.

15. The semiconductor device according to claim 11, wherein the electrodes of the second semiconductor element are electrically connected to the second wiring pattern by a face-down bonding method.

16. The semiconductor device according to claim 11, wherein the electrodes of the second semiconductor element are electrically connected to the second wiring pattern by a wire-binding method.

17. The semiconductor device according to claim 1, wherein the protruded electrodes are formed from a conductive member.

18. The semiconductor device according to claim 17, wherein the conductive member includes a structure in which a plurality of conductive films are stacked in layers.

19. The semiconductor device according to claim 17, wherein the conductive member is selected from the group consisting of a metal, a metal compound, an alloy, a conductive paste and a solder metal.

20. A semiconductor device, comprising:
a base substrate including a base wiring pattern;
a first circuit substrate disposed over the base substrate and including a first wiring pattern;
a first semiconductor element mounted on the first circuit substrate and including a first electrode electrically connected to the first wiring pattern;
a second circuit substrate disposed over the first circuit substrate and including a second wiring pattern;

a second semiconductor element mounted on the second circuit substrate and including a second electrode electrically connected to the second wiring pattern; and

means for electrically connecting to the first and second wiring patterns, protruding from the first and second circuit substrates and bonding to the base wiring pattern.